

LINEAR OPTICAL BEAM TRANSLATOR FOR OPTICAL ROUTING

ABSTRACT OF THE DISCLOSURE

5 An optical routing apparatus that allows flexible and effective routing of optical signals between input and output ports is provided. The apparatus makes use of one or more linearly actuated mirrors, with different routing configurations of the optical signals resulting from different mirror positions. For each such mirror, the linear actuation is may be performed along an axis that is either parallel or perpendicular to the mirror surface.

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WAVELENGTH ROUTER

ABSTRACT OF THE DISCLOSURE

5 A wavelength router that selectively directs spectral bands between an input
port and a set of output ports. The router includes a free-space optical train disposed between
the input ports and said output ports, and a routing mechanism. The free-space optical train
can include air-spaced elements or can be of generally monolithic construction. The optical
train includes a dispersive element such as a diffraction grating, and is configured so that the
light from the input port encounters the dispersive element twice before reaching any of the
10 output ports. The routing mechanism includes one or more routing elements and cooperates
with the other elements in the optical train to provide optical paths that couple desired subsets
of the spectral bands to desired output ports. The routing elements are disposed to intercept
the different spectral bands after they have been spatially separated by their first encounter
with the dispersive element.

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